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*S. L. R.*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/298,268	04/23/99	CHISHTI	M 18563-000130

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EXAMINER

WILSON, J

ART UNIT

PAPER NUMBER

3732

*#8*

DATE MAILED:

10/31/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/298,268**

Applicant(s)  
**Chishti et al.**

Examiner  
**John J. Wilson**

Group Art Unit  
**3732**



☒ Responsive to communication(s) filed on Aug 1, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire THREE month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

☒ Claim(s) 19-44 is/are pending in the application

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration

☒ Claim(s) 19-21 and 39-44 is/are allowed.

☒ Claim(s) 22-35 is/are rejected.

☒ Claim(s) 36-38 is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 7

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 24, line 6, "image based to produce" is unclear.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22, 23, 25-30 and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andreiko et al (243). Andreiko shows a computer method including receiving initial data and generating final positions through calculations and teaches calculating in several steps of movements, column 25, lines 38-67 and column 26, lines 1-55. These calculations inherently provide a set of intermediate positions and inherently use the previous data to calculate the next

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step. That this data can be provided as sets of intermediate data is an obvious matter of choice in the organization of known data to one of ordinary skill in the art. As to claim 23, see the Abstract, line 4. As to claim 25, the specific calculations used are an obvious matter of choice in calculations to the skilled artisan. As to claim 29, Andreiko teaches producing appliances.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Andreiko et al (243) as applied to claim 1 above, and further in view of Doyle et al. Andreiko teaches defining different features such as contact points, cusp tips and others for the purpose of calculating tooth movement and also teaches using boundaries, column 15, lines 56-69. Andreiko does not show moving these features relative to other teeth in an image. Doyle teaches displaying moved teeth, column 13, lines 20-25. It would be obvious to one of ordinary skill in the art to modify Andreiko to include displaying moved teeth as shown by Doyle in order to better see the results of moving the teeth.

***Allowable Subject Matter***

Claims 19-21 and 39-44 are allowed.

Claims 36-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Claim 24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed August 1, 2000 have been fully considered but they are not persuasive. The several steps taught by Andreiko et al (243) will inherently use previous data in the calculations.

***Conclusion***

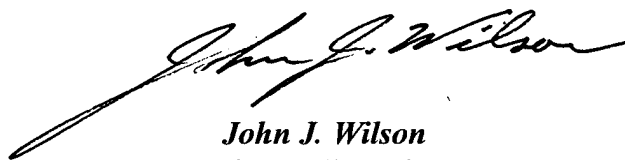
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to John Wilson at telephone number (703) 308-2699.

A handwritten signature in cursive script, reading "John J. Wilson". The signature is written in dark ink and is positioned above the printed name and title.

**John J. Wilson**  
**Primary Examiner**  
**Art Unit 3732**

jjw  
October 30, 2000  
Fax 703-308-2708